

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: SUNDARAM, Mani et al.

Group Art Unit: 2815

Serial No.

10/829,574

Examiner: JACKSON, Jerome

Filing or 371 (c) Date: 04/22/2004

Atty. Dkt. No: 20030126-CIP

For: QWIP WITH TUNABLES SPECTRAL RESPONSE

To:

Mail Stop Amendment Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

42716

CERTIFICATE OF MAILING 37 CFR 1.8: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as FIRST CLASS MAIL addressed to: Mail Stop Amendment, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450

Date: January 20, 2006

Debra Stengel

Commissioner:

INFORMATION DISCLOSURE STATEMENT

Applicants submit this statement and the attached 1 page Fee Transmittal form PTO/SB/17, 3 sheet(s) of form PTO/SB/08A and/or PTO/SB/08B and 17 references and other information in accordance to the duty of disclosure under 37 C.F.R. §§1.56,1.97, and 1.98, and requests consideration hereof. Pursuant to 37 CFR 1.98 (a)(2)(i) applicant has not transmitted herewith copies of cited U.S. Patents and U.S. patent application publications as the above application was filed after June 30, 2003.

Compliance with 37 C.F.R. §1.97: This Information Disclosure Statement is filed after the mailing date of a first office action on the merits. Therefore, the submission fee required pursuant to 37 CFR 1.17(p) is enclosed.

<u>Information Cited:</u> The Applicants hereby make of record in the above-identified application, the information listed on the attached form PTO/SB/08A and/or PTO/SB/08B. The order of presentation of the references should not be construed as an indication of the importance of the reference. As all the references listed on attached Form PTO/SB/08A and/or PTO/SB/08B are in English, no commentary is required.

<u>Remarks:</u> A copy of each reference, together with a listing on Form PTO/SB/08A and/or PTO/SB/08B, is submitted herewith. Applicants respectfully request that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;

- 2. The enclosed form PTO/SB/08A and/or PTO/SB/08B be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application; and
- 3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined in 37 C.F.R. §102.

Notwithstanding any statement by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

49716 Cus. No. 24222

Maine & Asmus

PO Box 3445

Nashua, NH 03061-3445

Tel. No. (603) 886-6100, Fax. No. (603) 886-4796

Info@maineandasmus.com

Scott J. Asmus, Reg. No. 42,269 Andrew P. Cernota, Reg. No. 52,711

Attorneys/Agents for Applicant

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PT & TRADE NAT

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 3

Complete if Known		
Application Number	10/829,574	
Filing Date	04/22/2004	
First Named Inventor	Sundaram, Mani et al.	
Art Unit	2878	
Examiner Name	Jackson, Jerome	
Attorney Docket Number	20030126-CIP	

U. S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1 Document Number Number-Kind Code ^{2 (ff known)}		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		US-		-	-		
		US-					
		US-					
		US-					
		US-		1181			
	-	US-					
		US-					
		US-					
	 	US-					
	 	US-					
		US-					
		US-					
	<u> </u>	US-		***			
		US-			-		
		US-		7 81 - 607-70			
		ÚS-					
		US-					
		US-		1=			
	İ	US-					

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
		Country Code ³ Number ⁴ Kind Code ⁵ (<i>if known</i>)	MM-DD-YYYY		Or Relevant Figures Appear	Τ [¢]	
		WO 98/09141	03-05-1998	California Institute of Te			
	ļ					L	
			i			1	

Examiner	Date	
Signature	Considered	
		<u> </u>

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449/PTO			ct or 1995, no persons ar	Complete if Known		
				Application Number	10/829,574	
			CLOSURE	Filing Date	04/22/2004	
STA	STATEMENT BY APPLICANT			First Named Inventor	Sundaram, Mani et al	
(Use as many sheets as necessary)				Art Unit	2878	
(ose as many sheets as necessary)		Examiner Name	Jackson, Jerome			
Sheet	2	of	3	Attorney Docket Number	20030126-CIP	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		PCT International Search Report dated March 8, 2001 of International Appl. No. PCT/US00/35162 filed Dec. 22, 2000.	
		ANDERSSON et al., "Grating-coupled quantum-well infrared detectors: Theory and performance", J. Appl. Phys., April 1, 1992, pp. 3600-3610, Vol. 71 No. 7.	
		MARSAN, AJMONE M. et al, "Modelling Slotted Multi-Channel Ring All-Optical Networks", IEEE, 1997, pp. 146-153.	
		MARSAN, AJMONE M. et al, "Access Protocols for Photonic WDM Multi-Rings with Tunable Transmitters and Fixed Receivers", SPIE, Vol. 2692, pp. 59-72.	
		BECKMANN, CARL, "Applications: Asynchronous Transfer Mode and Synchronous Optical Network", Handbook of Fiber Optic Data Communication, 1998, pp. 385-414, Academic Press.	
		ROSS, FLOYD E., "An Overview of FDDI: The Fiber Distributed Data Interface", IEEE Journal on Selected Areas in Communications, Sept. 1989, pp. 1043-1051, Vol. 7 No. 7.	
		GUNAPALA et al., "15-um 128 x 128 GaAs / AlxGa1-xAs Quantum Well Infrared Photodetector Focal Plane Array Camera", IEEE Transactions on Electron Devices, January 1,1997, pp. 45-50, Vol. 44 No. 1.	
		TIDROW et al., "Grating coupled multicolor quantum well infrared photodetectors", Appl. Phys. Lett., Sept. 25, 1995, pp. 1800-1802, Vol. 67 No. 13.	
		SUNDARAM, Mani and REISINGER, Axel, Avalanche QWIP, 7 pgs.	
		SUNDARAM, Mani and REISINGER, Axel, Tunable QWIP with Asymmetic Quantum Wells, 7 pgs.	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449/PTO		Complete if Known			
				Application Number	10/829,574
			CLOSURE	Filing Date	04/22/2004
STA	ATEMENT BY APPLICANT [First Named Inventor	Sundaram, Mani et al	
	(Use as many sheets as necessary)			Art Unit	2878
	(coo do many one			Examiner Name	Jackson, Jerome
Sheet	3	of	3	Attorney Docket Number	20030126-CIP

		NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
		SUNDARAM, Mani and REISINGER, Axel, Bimodal QWIP with Coupled Quantum Wells, 8 pgs.				
		SUNDARAM, Mani and REISINGER, Axel, Blocked Superlattice Miniband QWIP with/without Graded Barriers, 8 pgs.				
. <u> </u>		SUNDARAM, Mani and REISINGER, Axel, Tunable Multi-Color QWIP, 7 pgs.				
		SUNDARAM, Mani and REISINGER, Axel, Rotated Waffle-Grating Optical Coupler for QWIPs, 14 pgs.				
		SUNDARAM, Mani and REISINGER, Axel, Hybrid Metal Optical Coupler for QWIPs, 7 pgs.				
		SUNDARAM, Mani and REISINGER, Axel, Photon-in-Box QWIP, 9 pgs.				

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.